



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/767,827	01/29/2004	Mark S. Vogel	706061US1	5602
24938	7590	09/23/2005	EXAMINER	
DAIMLERCHRYSLER INTELLECTUAL CAPITAL CORPORATION			GIBSON, RANDY W	
CIMS 483-02-19			ART UNIT	
800 CHRYSLER DR EAST			PAPER NUMBER	
AUBURN HILLS, MI 48326-2757			2841	

DATE MAILED: 09/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

<b>Office Action Summary</b>	Application No. 10/767,827	Applicant(s) VOGEL ET AL.	
	Examiner Randy W. Gibson	Art Unit 2841	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Jan. 29, 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
     Paper No(s)/Mail Date 4/14/05.
- 4) ☐ Interview Summary (PTO-413)  
     Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3, 5, 6, 8, 10, 12, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Aoki (US 6,323,444 B1). See Figures 6 (A) - 6(C).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2841

4. Claims 7 and 14 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Aoki (US # 6,323,444 B1) in view of Nonnenmacher et al (US # 6,431,013). Aoki does not specify that he has an analog "conditioning circuit". However, it is well known that signal conditioning circuitry including at least an analog amplifier are necessary to amplify the output of strain gages in order for the differential mode signal to be strong enough to be detectable by an Analog/Digital converter as suggested by the example of Nonnenmacher (Col. 3, line 35 tp col. 4, line 12; Col. 6, lines 14-16). Note that Nonnenmacher also teaches that analog filters are commonly used as well. The device of Aoki must inherently have an analog amp at least in order to be operative; if not inherently present, then it would have been obvious to add analog conditioning circuitry as suggest by Nonnenmacher, motivated by its art recognized suitability for it's intended use. See *Ryco, Inc. v. Ag-Bag Corp.*, 857 F.2d 1418, 8 USPQ2d 1323 (Fed. Cir. 1988); and, *MPEP* §§ 2144.06 & 2144.07.

5. Claims 2 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoki (US # 6,323,444 B1) in view of Hopkins (US # 6,789,435). Aoki states that his substrate is made from steel, not titanium. However, it is known that titanium is an art recognized substitute for steel in strain sensors as shown by the example of Hopkins (Abs.); therefore it would have been obvious to manufacture the substrate of Aoki from titanium instead of steel since these two materials were art recognized functional

Art Unit: 2841

equivalents for strain sensor substrates. See *In re Fout*, 675 F.2d 297, 213 USPQ 532 (CCPA 1982); and, *MPEP* §§ 2144.06 & 2144.07.

6. Claims 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoki (US # 6,323,444 B1) in view of Lee et al (US # 2003/0066362 A1). Aoki does not specify that his strain gages are made from ruthenium dioxide. However, Lee teaches that this is a known material to use to make strain gages from in an automotive mounted strain sensor (paragraph 0050). It would have been obvious to make the strain gages of the automotive strain sensor of Aoki from ruthenium dioxide, as taught by Lee, motivated by its art recognized suitability for its intended use. See *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945) ("Reading a list and selecting a known compound to meet known requirements is no more ingenious than selecting the last piece to put in the last opening in a jig-saw puzzle." 325 U.S. at 335, 65 USPQ at 301.); *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960) (selection of a known plastic to make a container of a type made of plastics prior to the invention was held to be obvious); and, *MPEP* §§ 2144.06 & 2144.07.

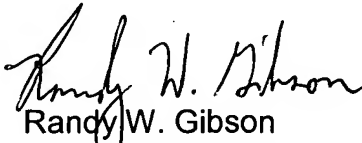
### **Conclusion**

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Randy W. Gibson whose telephone number is (571) 272-2103. The examiner can normally be reached on Mon-Fri., 9-5.

Art Unit: 2841

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on (571) 272-1957. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Randy W. Gibson  
Primary Examiner  
Art Unit 2841